

## ***Comparision of the efficacy of potassium citrate and polycitrate-K in children and infants with urolithiasis***

### ***Abstract:***

***Background and Objective:*** Renal stones are one of the important diseases among children and infants. Since the surgical treatment has side effect and risks. Drug treatment methods are very important. Two of the drugs used to treat these stones are potassium citrate and potassium poly-citrate. The aim of this study was to compare the therapeutic effect of the two drugs on the treatment of renal stones in children and infants.

***Methods:*** In this randomized clinical trial study, 70 patients under the age of 17 years with renal stones who referred to Nephrology clinic of Bootali hospital in Ardabil city were selected and divided into two groups of 35. One of the groups was treated with citrate potassium and the other one with potassium poly-citrate and the effect of drugs was compared on the basis of age, sex, etc. In all the surveys significant level was considered less than 0.05.

***Result:*** In each group, the therapeutic effects of both drugs were significantly increased. The results of our study showed that there was no significant difference between the mean stone size in the third and sixth months of treatment in the potassium citrate drug group. However, respond to treatment in the age group of 61 to 120 months in the drug group of potassium citrate was more than in the group of poly-citrate potassium.

***Conclusion:*** Our study showed that it seems there is no significant difference between the efficacy of the two drugs potassium citrate and potassium poly-citrate. 85% of the patients treated with potassium citrate and 91% of patients treated with poly-citrate were cured, but no significant difference was found between the efficacies of the two drugs.

***Keywords:*** Urolithiasis, children, potassium citrate, polycitrate-k, hypercalciuria.